

## NOTES ON AMERICAN HEMIPTERA.

BY DR. E. BERGROTH, HIBBING, MINN.

## I.

## ARADIDÆ.

1. *Aradus concinnus*, Bergr.—Female: Fifth ventral segment as long in the middle as at the sides, with a transverse obtuse-angulated keel a little in front of the almost straight middle part of the apical margin, this keel at the ends coalescing with the apical margin, apical angles of the segment reaching a little beyond the slightly rounded apical margin of the middle part of the sixth ventral segment, which is broader than long, apical angles of this segment nearly reaching apex of second genital segment, which does not project behind apex of abdomen and is half as long as the transverse first genital segment, this more than twice as broad at base as at apex, apical genital lobes shortly prominent beyond apex of abdomen, somewhat distant interiorly, inner margin rounded, apical margin oblique, notched before the middle, dorsal genital segment broadly rounded at apex.

I described this neat little species from a single male from South California without nearer locality. Mr. Heidemann has received both sexes from Palm Springs, Cal. It is the only known American species of the group called *Piestosoma* by Laporte.

2. *Aradus Behrensi*, Bergr.—Of this species, hitherto known only from California, Mr. Heidemann has sent me a specimen from Hood River, Oregon.

3. *Aradus Hubbardi*, Heid.—Of this species Mons. Schouteden has sent me a brachypterous female from Truckee, Cal. (5,800 ft.). In this the corium extends only a little beyond the middle of the second abdominal segment and the membrane is very short, appearing only as a rounded border of the apical margin of the corium, not extending behind its apical angle. I have never before seen a brachypterous imago of this group of the genus.

4. *Aradus cincticornis*, n. sp.—Ovate, male not narrower than female, blackish-brown, basal part and expanded lateral parts of the pronotum yellowish, apical half of scutellum light brown with the apex black, corium, connexivum and under-side of the body mottled with yellow, apical angles of connexival segments yellow, second joint of antennæ sparingly and minutely speckled with yellow, third joint whitish except at base, legs often minutely speckled with yellow, apex of tibiæ testaceous.

Head about as long as the pronotum in the middle, and distinctly longer than broad, longitudinally impressed at the sides with a small tubercle a little in front of and within the strongly-prominent substylated eyes, apical process parallel from the apex to near the base, reaching the middle third part of the second antennal joint, antenniferous spines a little divergent, with a small tooth on the outer margin, antennæ slender, almost filiform, second joint distinctly shorter than the head, longer than the third and fourth joint together, very slightly incrassated at the apex, fourth joint a little longer than the third, rostrum reaching to or a little beyond the middle of the mesosternum. Pronotum more than twice as broad as long in the middle, dilated on the sides, with the greatest breadth behind the middle, sinuated at base in front of the scutellum, lateral margins obtusely angulated, remotely and bluntly dentate, antero-lateral and postero-lateral margins almost straight, disk with the usual six keels, the two inner keels reaching the apical margin, approximated before the middle, external keels much abbreviated, not reaching the middle, median keels reaching the middle of the fore half, ending in a tubercle. Scutellum with a central tubercle, lateral margins raised, nearly parallel towards the base. Hemelytra in the male extending a little beyond the middle of the dorsal genital segment, in the female only reaching the base of this segment, lateral margin of corium amplified near the base, membrane grayish, with more or less distinct small fuscous spots. Abdomen rather strongly rounded on the sides, lateral margin of connexivum distinctly subangularly prominent just before the apical angles of the segments. Length, ♂, 6 mm.; ♀, 6.5 mm.

Males : Apical lobes of genital segment broad, rounded, with some short and blunt marginal teeth.

Female : Fifth ventral segment a little shorter in the middle than at the sides, apical margin straight in the middle, apical angles extending beyond the middle of the median lobes of the sixth segment, these lobes taken together about as broad at apex as their length, apical angles of sixth segment not reaching the apex of the first genital segment, which is very short, four times shorter than the middle of the sixth ventral segment, second genital segment but little shorter than the first, hairy, protruding between the apical genital lobes, the outer margin of which is rounded, with a few obtuse teeth.

#### ALABAMA.

Allied to *A. similis*, Say, and *Hubbardi*, Heid., but it is more broadly ovate in both sexes, differently coloured, with the lateral margin of the

abdomen more undulate, and with the genital and female ventral segments differently shaped.

5. *Aradus Falleni*, Stal.—Taken by Mr. Heidemann near Washington, D. C., the most northern locality recorded for this species.

6. *Aradus gracilicornis*, Stal.—Mr. Heidemann has sent me specimens from Chiricahui Mountains, Arizona. It was hitherto known only from Cuba.

7. *Aradus niger*, Stal.—This species, although rare, seems to be widely distributed. It is recorded from Colorado by Gillette and Baker under the unpublished name, *A. obliquus*, Uhl.

8. *Aradus Heidemanni*, n. sp.—Elongate-ovate (♀), fuscous, unicolorous, external margins of pronotum, abdomen and basal part of corium very finely crenulate. Head distinctly longer than broad, scarcely shorter than the pronotum in the middle, with a U-shaped impression above and a small, rather acute forwardly-directed tubercle a little within and in front of the eyes, apical process narrowly conical, just a little passing the base of the second antennal joint, antenniferous spines a little divergent, with a distinct tooth on the outer margin, antennæ cylindrical, second joint shorter than the width between the eyes, third joint a little shorter and narrower than the second, fourth joint distinctly shorter than the third, rostrum not quite reaching base of head. Pronotum about twice as broad as long in the middle, scarcely broader than the base of the hemelytra, almost trapezoidal, apical margin truncate, lateral margins a little rounded from the base to a little before the middle, basal margin deeply sinuate in front of the scutellum, disk with four anteriorly convergent keels and a much abbreviated obtuse keel within the lateral angles. Scutellum distinctly longer than the middle of the pronotum, lateral margins reflexed, slightly rounded, apex obtuse. Hemelytra in the macropterous female reaching the base of the dorsal genital segment, corium nearly reaching apex of third segment, somewhat dilated and rounded near the base. Abdomen slightly roundedly prominent near the apical angle of the fifth connexival segment, lateral margins of the sixth segment straight, apical angles obtuse, apical margin broadly truncate, with the female genital lobes much projecting beyond the truncated margin. Length, ♀, 7.8 mm.

Male unknown.

Female: Fifth ventral segment a little shorter in the middle than at the sides, the apical angles reaching apex of the middle lobes of sixth

segment, apical margin trisinate in the middle; central lobes of sixth segment dilated towards the apex, taken together much broader at apex than the length of the segment, apical margin trisinate in the middle part, apical angles almost reaching apex of second genital segment; first genital segment twice as long as second, this not protruding between the apical genital lobes, which are rather broadly distant and broader than long, rounded on the inner side and shallowly notched on the outer side; dorsal genital segment almost truncate at apex, scarcely projecting beyond apical margin of last connexival segment.

Astoria, Oregon (coll. Heidemann); Yale, British Columbia (my coll.).

The specimen from Yale is a brachypterous female; it is of a more grayish-black colour, the lateral margins of the pronotum are quite straight, the corium is not longer than the scutellum, rounded at apex, and the membrane is entirely wanting. It much resembles the brachypterous form of *niger*, but is larger, with the antennæ and female genital segments differently shaped.

This interesting species belongs to the subgenus *Quilnus* of Stal, distinguished by the very short rostrum and the trapezoidal pronotum. This subgenus is represented by three species in the palæarctic region (*A. parvicollis*, Stal, from South-eastern Europe and the Island of Cyprus; *A. mirus*, Bergr., from Austria, and *A. brevisrostris*, Horv., from Siberia), and by two nearctic species (*A. niger*, Stal, and the above described new species). They live on conifers; unlike other Aradi, which are mostly found under the bark, *mirus* dwells on the twigs and needles of the live trees.

9. *Mezira Jamaicensis*, n. sp.—Elongate, brownish piceous, abdomen ferruginous, apical margin of connexival segments pale yellow. Head about as long as broad, antenniferous spines short, slightly divergent, first joint of antennæ considerably passing apex of head, second joint shorter than first, incrassated towards apex, third joint longer by a half than the second, slender, a little incrassated at extreme apex, fourth joint a trifle shorter than second, postocular teeth acute, not passing the eyes. Pronotum almost straight at base, sides rounded, sinuated before the middle, apical angles rounded. Scutellum slightly carinate in the middle. Hemelytra (♀) reaching base of sixth dorsal segment, corium reaching the middle of second connexival segment, apical margin straight, membrane blackish, with two subconfluent pale spots at base. Abdomen scarcely broader than pronotum. Length, ♀, 6 mm.

Jamaica (coll. Montandon).

Distinguished from the allied species by the almost parallel body and by the colour.

[N.B.—The genus *Brachyrrhynchus*, Lap., must bear the younger name, *Mezira*, Am. S., the first name being preoccupied (Sélys, Aves, 1831). The allied genus, *Coloborrhynchus*, Champ., the name of which is also preoccupied (Owen, Reptilia, 1874), I propose to call *Coloborrhinus*.]

#### CATALOGUE OF THE GENERA OF THE HEMIPTEROUS FAMILY APHIDÆ.—SECOND SUPPLEMENT.

BY G. W. KIRKALDY, HONOLULU, HAWAIIAN ISLANDS.

In the *Annales of the Belgian Entomological Society* (Vol. 50, pp. 30-6, Feb. 2, 1906), my friend Mr. Schouteden has added a considerable number of genera and species to my list, extending it to 1906.

The number of omissions, even before 1905, is so large, comparatively, that it demands some explanation from me.

1. Some of the remarks, as, for example, the identity of *Aristaphis* and *Pterocomma*, are matters of opinion, though Mr. Schouteden is more likely to be right in this matter than I. These, however, are few in number, and are incidental to all list-making.

2. Some of the omissions were rectified in the first supplement, and it is instructive, as illustrating the difficulty of procuring, or, rather, of knowing of the existence of, some of the papers, that Schouteden did not know of one or two added there by me.

3. I can scarcely hold myself justly responsible for ignorance of many of the papers, as they were in publications inaccessible here, and were not included in any of the usual records. An author can certainly publish where he wishes, but he ought to send copies for record to the *Zoological Record*, *Bericht der Entomologie*, or similar works.

The *Zoological Record* for 1904 was not received here till February, 1906, consequently I lost an opportunity of revising my list.

4. Almost all of the omissions are of European species, the most notable being several species of *Phylloxera*, described by Pergande.

5. In the same *Annales*, p. 42 (Feb. 27), Mr. Schouteden adds another omitted genus (dating from 1857!) and makes one or two minor alterations in his own paper.